



Arrangements for:

HNC/HND Forestry

Group Award Code: G93N 15 and G93P 16

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Acknowledgement

SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of Higher National qualifications.

History of changes

It is anticipated that changes will take place during the life of the qualification, and this section will record these changes. This document is the latest version and incorporates the changes summarised below.

Version number	Description	Date
05	Revision of Units: F3YM 34 Forestry Operations: Work Programming (finish date 31/7/2018) has been replaced by J1DN 34 Forestry Operations: Planning and Implementation (start date 01/08/2018).F406 34 Forestry Operations: Land Measurement (finished31/07/2018) has been replaced by J1DL 34 Forestry: Land Measurement (start date 01/10/2018) for both HNC/HND frameworks	11/10/18
04	Corrections to the overall credit values in the HNC and HND structures	29/05/18
03	Revision of Units: F3YW 34 Forestry: Forest Service (finish date 31/07/2020) has been replaced by HX5M 35 (Start date 01/08/2018). F3YF 34 Forest Mensuration and Thinning Control (finish date 31/07/2020) has been replaced by HX5N 34 Forest Mensuration and Thinning Control (start date 01/08/2018). F3YD 35 Forest Harvesting (finish date 31/07/2020) has been replaced by HX5P 34 (start date 01/08/2018) All 3 units will be updated on both HNC/HND frameworks	05/02/18
02	Revision of Units: DK2K 34 Getting Started in Business has been revised by H7V4 34 Preparing to Start a Business and will finish on 31/07/2016. DE3N 34 Communication: Analysing and Presenting Complex Communication has been revised by H7TK 34 Communication: Business Communication and will finish on 31/07/2016. D77G 34 Communication: Practical Skills has been revised by H7MB 34 Communication: Practical Skills and will finish on 31/07/2016.	09/01/15

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1 Introduction

This is the Arrangement Document for the revised Group Awards in HNC and HND Forestry, which were validated in June 2008. This document includes: background information on the development of the Group Awards, their aims, guidance on access, details of the Group Award structures, and guidance on delivery.

These revised awards will replace the current HNC and HND in Forestry which were introduced in 1981.

The new qualifications are designed to equip candidates with the knowledge, understanding and practical skills required for success in current and future employment or progression to further academic qualifications.

2 Rationale for the revision of the awards

The current single centre awards of HNC and HND in Forestry introduced in 1981 have, to date, met the needs of industry. However, the content of the awards required updating to reflect changes within the industry and incorporate more practical skills.

The new awards will meet the needs of the industry by supplying the specific niche markets of forestry supervisors and forest managers as well as opening up wider employment opportunities within the land-based sector and beyond.

The awards are based on practical exercises to build up knowledge, understanding and analysis skills for the working environment as well as research and evaluative skills for management. This means that learning is through actual practical exercises relevant to the work situation.

In the main, the HNC is delivered over one year on a full-time basis and the HND over two years on a full time basis. Candidates may choose to undertake a work placement year between the first and second year of their HND to build competence in their practical skills. They could incorporate the Professional Development Award in Forestry at SCQF level 8 into this work experience year and gain an additional 4 SQA credits.

Both the HNC and HND are designed to prepare candidates for a career in forestry either as a supervisor or in management, working for an established company or as a forestry contracting entrepreneur. The HND qualification is designed to allow candidates to articulate to the UHI BSc Sustainable Forest Management and also to articulate to a variety of universities in the UK and overseas at an appropriate level and type of qualification. The qualifications also allow articulation to membership of the Institute of Chartered Foresters (ICF) at the appropriate level.

Evidence indicates that approximately 80% of candidates currently choose to articulate to the third year of the UHI BSc Sustainable Forest Management programme, and 20% choose to enter the forestry management sector of employment, or other forestry related careers.

The revision of the awards provided an opportunity to take cognisance of changes in policy and emphasis within the UK Forestry industry and adapt or create Units to reflect developments. It also provided the HN Review Team (HNRT) with an opportunity to rationalise assessment schedules and to offer candidates a more diverse range of assessment types.

2.1 Market research and consultation

To ensure that the new qualifications were vocationally relevant and met the needs of both candidates and industry, detailed market research was carried out by the HN Review Team set up to oversee the development. A variety of stakeholders were consulted on:

- ◆ the proposed course structure
- ◆ employment needs
- ◆ articulation to degree courses

Consultation and development details are summarised in the following table:

Stakeholder	Development/Consultation
Delivering centre	<ul style="list-style-type: none"> ◆ Initial meeting with Centre representatives to establish an HN Review Team (HNRT) ◆ HNRT received Unit writing training from SQA and continued support from team leader and SQA
Employers	<ul style="list-style-type: none"> ◆ Members of the Forest Advisory Committee of the Scottish School of Forestry informed and asked to comment on the new framework and the developments over the period of development ◆ Postal/e-mail questionnaire sent to employers throughout the UK to gather their views on awareness and acceptance of the awards and requirements in terms of knowledge and skills content ◆ Significant contributions were also made informally at industry meetings and field trips
Higher Education	<ul style="list-style-type: none"> ◆ Postal/e-mail questionnaire were sent to Aberdeen and Cumbria Universities and Barony College
Current candidates	<ul style="list-style-type: none"> ◆ Questionnaires on the existing curriculum, suggestions for changes and other comments
Former candidates	<ul style="list-style-type: none"> ◆ Postal/e-mail questionnaire to establish destination/job statistics and views on relevance of subjects studied for employment and HE
Professional Bodies	<ul style="list-style-type: none"> ◆ Letter sent to relevant institutes for which delivery centre offers professional awards, and to which existing HN qualifications either articulate or provide a vocational basis for progression. The professional bodies included: the Institute of Chartered Foresters (ICF); the Royal Scottish Forestry Society (RSFS); and LANTRA the Sector Skills Council ◆ These organisations were asked to supply their occupational standards for mapping with the HN structures

Main issues raised by stakeholders during consultation:

- ◆ There was a demand for the continuation of separate HNC and HND Awards
- ◆ The new course structures should reflect the current changes in the industry
- ◆ Practical skills and competencies are important in both frameworks
- ◆ There should be strong emphasis on all Core Skills — in particular: *Communication, Problem Solving and Working with Others*
- ◆ Retain work placement opportunity between first and second year HND
- ◆ Maintain current successful articulation routes
- ◆ There should be opportunities for candidates to develop their personal effectiveness and engage with lifelong learning

Feedback from consultation

Stakeholder	Feedback
Employers	<ul style="list-style-type: none">◆ Several common areas of competency relevant to awards were identified: silviculture, amenity tree management, tree surveys, evaluation of trees, work planning, work supervision, practical arboriculture, tree disease, urban forestry and urban wildlife◆ Prepared to employ HNC/D Forestry graduates
Candidates	<ul style="list-style-type: none">◆ General satisfaction with the award structures, emphasis and general relevance for employment and progression to HE
Higher Education	<ul style="list-style-type: none">◆ No formal feedback received. Individual colleges and universities set their own admission policies in respect of their degree programmes

3 Aims of the award

The HNC is designed to provide candidates with the underpinning forestry knowledge needed to prepare them for the role of supervisor within the industry. The HND focuses on the managerial aspects of forestry and the wider aspects of forest management, ie forest policy, forest protection, design, recreation and land use and will prepare candidates for management positions or enable them to articulate to HE.

The overall aims of the HN programmes are to produce highly motivated candidates with the necessary vocational skills, knowledge and ability to progress to employment and further study opportunities. In addition the forestry subject area seeks to:

- ◆ provide individuals working, and seeking work, within these associated industries with opportunities to access a range of high quality courses that provide choice, flexibility and accessibility.
- ◆ offer courses relevant to the needs of individuals and employers.
- ◆ ensure candidates develop knowledge and understanding and a range of skills that will contribute to their personal development as well as facilitating progression in employment and/or further study.
- ◆ ensure both qualifications follow the main thrust of all advanced qualifications by concentrating on the ability to demonstrate competences. Both qualifications provide a degree of choice for candidates and enable them to pursue a range of different employment opportunities within the forestry industry, higher education through entry to UHI's BSc Sustainable Forest Management or other courses and gain 7 out of 8 points towards full membership of the industry's professional body the Institute of Chartered Foresters (ICF) for HND graduates The 8th point is gained through professional work experience over one year.
- ◆ ensure both qualifications provide flexibility in giving candidates opportunities to delay or accelerate academic/career directions. For example, HNC candidates can articulate with the HND qualification in a logical and easy manner. Equally, HND candidates can terminate their course at the end of the first year and obtain a HNC qualification.

3.1 General aims of the awards

HNC Forestry

- ◆ To provide a teaching and learning environment that allows candidates to develop a good understanding of current harvesting and silvicultural techniques
- ◆ To develop skills in forest inventory collection and analysis
- ◆ To develop and demonstrate skills in ICT and communication
- ◆ To develop and embed transferable skills
- ◆ To understand the role of the forest industry

HND Forestry

- ◆ To maintain and develop a clear linkage with forestry and the wider land-based industry
- ◆ To reflect and contrast current forest practice
- ◆ To develop skills and knowledge regarding forest management techniques
- ◆ To make use of the rich and varied environment in the Highlands and Islands and beyond to provide skills and knowledge with a global application
- ◆ To evaluate the use of ICT and valuation techniques to the forest industry
- ◆ To evaluate the land use and conservation potential of sites within Scotland as a whole.
- ◆ To undertake detailed fieldwork and develop ideas and methods for effective forest management

3.2 Specific aims of the awards

HNC Forestry

The specific aims of the HNC Forestry are to enable candidates to:

- 1 understand the principles of silviculture and harvesting relating to forestry.
- 2 understand the principles of operation management and supervision.
- 3 understand measurement techniques in relation to land and forests.

HND Forestry

The specific aims of the HND Forestry are to enable candidates to

- 4 evaluate the principles of silviculture and harvesting relating to forestry.
- 5 understand and evaluate forest policy.
- 6 understand the principles of supervision and review operations.

- 7 understand measurement techniques and evaluate forest design in relation to land and forests.
- 8 evaluate the principles of forest management.
- 9 evaluate ecology and conservation principles in a forestry context.
- 10 use communication and ICT skills.
- 11 evaluate the economic and financial aspects of the forest industry.
- 12 evaluate the market potential of the forest industry.
- 13 evaluate the public and social aspects of forestry in the UK and Europe.

3.3 Target groups

These awards are suitable for a wide range of candidates including:

- ◆ School leavers who wish to follow a career as supervisors and managers in the forestry industries
- ◆ Existing practitioners in the industry who wish to upskill or formalise their experience/qualifications
- ◆ Candidates wishing to become self-employed or start up a small enterprise within the forestry sector

3.4 Employment opportunities

The forest industry is a stable and important part of the rural economy. Recent governments have supported the expansion of the industry and emphasized the significance of the industry to the rural economy. Candidates may gain employment as:

- ◆ Foresters
- ◆ Tree officers
- ◆ Land-based sector officers
- ◆ Forest supervisors/managers

3.5 Articulation

Currently there are no formal articulation arrangements with specific HE institutions. However, discussions are ongoing with HE institutions regarding articulation.

HE institutions which accepted the previous HNC/D Arboriculture and Urban Forestry graduates include:

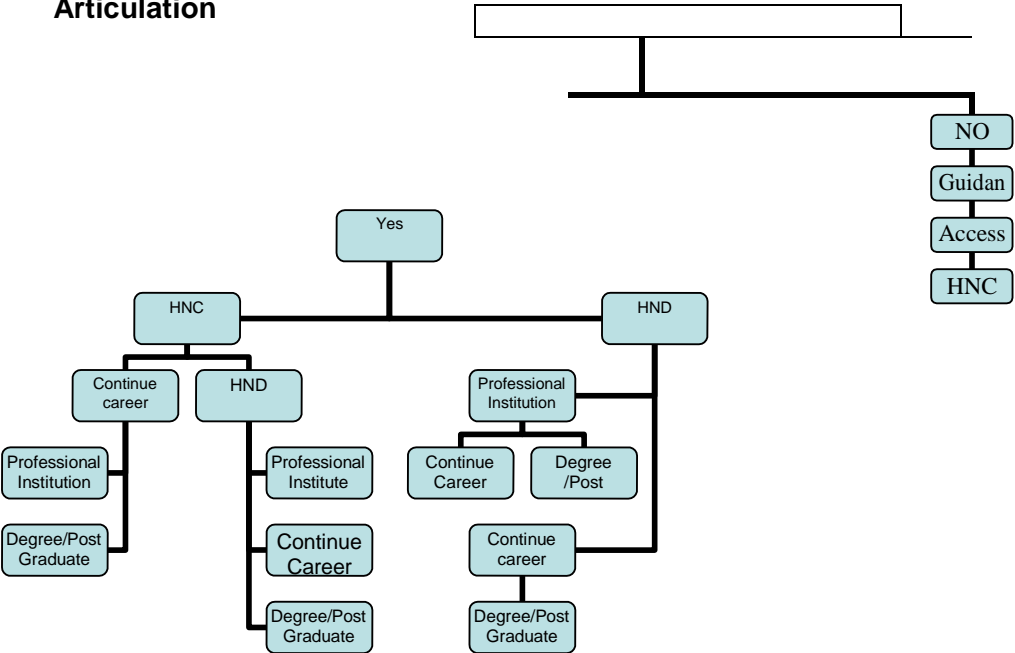
HEI	Course and Entry point
Inverness College	Sustainable Forest Management
University of Aberdeen	Forest Conservation Forest Science Forestry Year 2 entry for HND graduates
University of Cumbria	Forestry and Woodland Management Forestry Top Up Year 3 entry for HND graduates
University of Bangor	Forestry Conservation and Forest Ecosystems Year 2 entry for HND graduates

Candidates are advised to liaise directly with the HE establishments prior to each year's intake of candidates as Unit credits that count towards entry requirements can vary. The flow chart on the following pages gives possible articulation routes.



Diagram 1

3.6 Articulation



4 Access to awards

As with all SQA qualifications, access to the awards will be at the discretion of the centre and is possible by various routes. The following recommendations are for guidance only.

4.1 Formal qualifications

Examples of appropriate formal entry qualifications are specified below. They are not exhaustive or mutually exclusive and may be offered in a variety of combinations.

HNC

- ◆ One Higher at grade C or above or equivalent + one year's relevant practical work experience.
- ◆ Successful completion of relevant further education one year programme or equivalent.
- ◆ Relevant Scottish Group Award at Intermediate 2 or Higher.
- ◆ Relevant Skills for Work (SfW) or Scottish Progression Award (SPA) + one Higher.
- ◆ SVQ level 2 or 3 or Modern Apprenticeship in relevant area.
- ◆ Different combinations of relevant National Qualifications, Vocational Qualifications and equivalent qualifications from other awarding bodies may also be acceptable, as would suitable vendor qualifications at an appropriate level

HND (year 1)

- ◆ Two Highers at grade C or above or equivalent + one year's practical experience.
- ◆ Three Highers at grade C or above or equivalent. (This high level of academic achievement approximates to university entrance and negates the need for a practical experience period).
- ◆ Relevant Skills for Work (SfW) or Scottish Progression Award (SPA) coupled and three Highers.
- ◆ SVQ level 2 or 3 or Modern Apprenticeship in relevant area
- ◆ Different combinations of relevant National Qualifications, Vocational Qualifications and equivalent qualifications from other awarding bodies may also be acceptable, as would suitable vendor qualifications at an appropriate level.

4.2 Entry to Year 2 HND

In order to achieve the HND Forestry candidates must gain 30 SQA credits. Ideally full-time candidates should be encouraged to achieve 15 credits in each year of the award. Wider access should be provided to cater for the needs of those, for example, who have achieved the HNC at day release or evening classes or in other colleges. Candidates would therefore be expected to have a minimum of 12 credits on entry to year 2 and these would include the HNC Forestry mandatory Units.

4.3 Work experience

Candidates with suitable relevant work experience may be accepted for entry provided the enrolling centre believes that the candidate is likely to benefit from undertaking the award.

4.4 English as an additional language

For candidates where English is not their first language it is recommended that they possess English for Speakers of Other Languages (ESOL) level 5 or a score of 5.5 in International English Language Testing System (IELTS). Inverness College provides ESOL classes for such candidates and also prepares candidates for the Cambridge exams if they wish this certificate.

4.5 Access criteria guideline table

Access criteria	HNC	HND Yr 1	HND Yr 2
One Higher + 1 year practical experience	X		
Two Highers + 1 year practical experience		X	
Three Highers		X	
One year relevant FE Programme award	X		
Mature candidate	X		
Mature candidate with relevant experience	X	X	
Relevant HNC or equivalent from another institution			X
Relevant SVQ level 2 or 3 or Modern Apprenticeship	X	X	
Relevant Vocational Pathways award + one Higher	X		
Relevant Vocational Pathways award + three Highers	X	X	
CPD/Part-time study	X	X	X

5 Awards structure

Both awards have been designed in accordance with SQA's design principles for HN Awards.

- ◆ HNC shall be designed to be at SCQF level 7 and shall comprise 96 SCQF credit points with at least 48 credit points at SCQF level 7. This should include a mandatory section of at least 48 SCQF credit points and include one Graded Unit of 8 SCQF credit points at SCQF level 7.
- ◆ HNDs shall be designed to be at SCQF level 8 and shall comprise 240 SCQF credit points with at least 64 SCQF credit points at SCQF level 8. This should include a mandatory section of at least 96 SCQF credit points and include one Graded Unit of 8 SCQF credit points at SCQF level 7, plus 16 SCQF credit points of Graded Unit(s) at SCQF Level 8.

5.1 Framework

HNC Forestry

12 credits required — 11 mandatory + 1 optional credits

Unit title	Code	SCQF credit points	SCQF level	SQA credit value
Mandatory Units:				
Forest Science	HX5M 35*	16	8	2
Establishment of Woodland	F3YC 34	16	7	2
Forest Harvesting	FX5P 34*	16	7	2
Forest Mensuration and Thinning Control	HX5N 34*	16	7	2
Employment and Health and Safety Legislation for the Land Based Industries	F0VP 34	8	7	1
Forestry: Timber Sales and Transportation	F400 34	8	7	1
Forestry: Graded Unit 1	F4SH 34	8	7	1
Optional Units				
Forestry Operations: Planning and Implementation	J1DN 35*	12	8	1
Forestry: Land Measurement	J1DL 34*	12	7	1
Information Technology Software Applications 1	D75X 34	8	7	1
Forestry: Silvicultural Systems	F3YY 34	8	7	1
Forestry: Arboricultural Operations	F3YN 34	8	7	1
Woodland Nursery Production	F408 34	8	7	1
Forestry: Woody Plant Biology	F405 34	8	7	1

HNC Forestry

Optional Units (continued)

Unit title	Code	SCQF credit points	SCQF level	SQA credit value
Communication: Business Communication*	H7TK 34*	8	7	1
or				
Communication: Practical Skills	H7MB 34*	8	7	1

HNC Forestry

30 credits required — 26 mandatory + 4 optional

Unit title	Code	SCQF credit points	SCQF level	SQA credit value
Mandatory Units				
Forest Science	HX5M 35*	16	8	2
Establishment of Woodland	F3YC 34	16	7	2
Forest Harvesting	HX5P 34*	16	7	2
Forest Mensuration and Thinning Control	HX5N 34*	16	7	2
Employment and Health and Safety Legislation for the Land Based Industries	F0VP 34	8	7	1
Forestry Operations: Planning and Implementation	J1DN 35*	12	8	1
Forestry: Timber Sales and Transportation	F400 34	8	7	1
Forestry: Land Measurement	J1DL 34*	12	7	1
Forestry Policy and Law	F3YT 35	8	8	1
Forestry and Other Land Use	F3YJ 35	8	8	1
Forestry: Forest Protection	F3YV 35	16	8	2
Forest Industries Market Evaluation	F3YL 35	8	8	1
Forestry: Financial Control of Forest Enterprises	F3YP 35	8	8	1
Forestry: Woodland Conservation	F402 35	8	8	1
Forestry: Forest Design	F3YR 35	8	8	1
Forestry: Woodland Ecology	F403 35	8	8	1
Forest Recreation	F3YG 35	8	8	1
Forestry: Graded Unit 1	F4SH 34	8	7	1
Forestry: Graded Unit 2	F4SJ 35	16	8	2
Optional Units				
Information Technology Software Applications 1	D75X 34	8	7	1
Forestry: Silvicultural Systems	F3YY 34	8	7	1
Forestry: Arboricultural Operations	F3YN 34	8	7	1
Woodland Nursery Production	F408 34	8	7	1
Forestry: Woody Plant Biology	F405 34	8	7	1
Forestry: Use of Computers in Forest Management	F401 35	8	8	1
Forest Investment Appraisal and Forest Valuation	F3YE 35	8	8	1
Forestry in Europe	F3YK 35	8	8	1
Urban Woodlands and Green Space	F407 35	8	8	1
Forestry: Alternative Forest Products	F3YH 34	8	8	1
Preparing to Start a Business	H7V4 34*	8	8	1

Optional Units (continued)

Unit title	Code	SCQF credit points	SCQF level	SQA credit value
Communication: Business Communication*	H7TK 34*	8	7	1
or				
Communication: Practical Skills	H7MB 34*	8	7	1

If candidates choose to undertake an industrial placement between the first and second years of the HND award they may be given the opportunity to gain the Professional Development Award (PDA) in Forestry at SCQF level 8. This PDA consists of the following Units:

Unit title	Code	SCQF credit points	SCQF level	SQA credit value
Forestry: Operational Control	F3YX 35	16	8	2
Forestry: Forest Planning and Management	F3YS 35	16	8	2

5.1.1 Graded Units

The purpose of the Graded Units is to assess the candidate's ability to integrate and apply the knowledge and/or skills gained in the individual Units to demonstrate that they have achieved the principle aims of the Group Award and to grade the candidate's achievement. The Graded Unit(s) will be assessed and a grade of A, B or C will be awarded to each of the Graded Units.

Candidates will undertake a one credit HN Graded Unit (8 SCQF credit points) at level 7 in HNC award. In the HND award candidates will undertake a one credit HN Graded Unit (8 SCQF credit points) at level 7 in the first year and a two credit HN Graded Unit (16 SCQF credit points) at level 8 in the second year.

Graded Unit 1

This Unit will be project based and will take the form of a case study. It will cover a range of skills achieved through studying the mandatory Units of the award and ensure that current good practice is assessed.

Graded Unit 2

This Unit will be project based and will take the form of a management planning practical assignment. This will ensure that the skills developed in planning, developing and evaluating projects, required for various career paths within forestry management, are assessed along with the principal aims of the Group Award.

5.1.2 Core Skills Entry level

The recommended Core Skills entry and exit profiles for HNC are:

Core Skill	Entry SCQF level	Exit SCQF level
Communication	4	5
Working with Others	4	5
Problem Solving	4	5
IT	4	5
Numeracy	4	5

At HND level there will be further development and consolidation of Core Skills.

The recommended Core Skills entry and exit profiles for HND are:

Core Skill	Entry SCQF level	Exit SCQF level
Communication	5	6
Working with Others	5	6
Problem Solving	5	6
IT	5	5
Numeracy	5	6

A Core Skills signposting guide is given in Appendix 1. Details of recommended Core Skills exit levels, by Unit, are also given in this Appendix.

5.2 Mapping information

The tables below show how the individual Units map to the aims of the awards.

HNC Forestry

Unit title	Unit code	Aims
Forestry: Forest Science	F3YW 34	1,2,3,10
Establishment of Woodland	F3YC 34	1,2,3,5,10
Forest Harvesting	F3YD 34	1,2,3,5,10
Forest Mensuration and Thinning Control	F3YF 34	1,2,3,10
Employment and Health and Safety Legislation for the Land Based Industries	F0VP 34	1,2,5,6,10,13
Forestry: Timber Sales and Transportation	F400 34	1,2,3,5,10,12,13
Forestry: Graded Unit 1	F4SH 34	1,2,3,5,6,10,12,13
Forestry Operations: Work Programming	F3YM 34	1,2,3,6,10,11,13
Forestry: Land Measurement	F406 34	2,3,6,7,10,
Communication: Analysing and Presenting Complex Communication	DE3N 34	2,10
Communication: Practical Skills	D77G 34	2,10
Information Technology Software Applications 1	D75X 34	2,10
Forestry: Silvicultural Systems	F3YY 34	1,2,3,4,5,13
Forestry: Arboricultural Operations	F3YN 34	1,2,6,10,13
Woodland Nursery Production	F408 34	1,2,5,6,10,12
Forestry: Woodland Management Planning	F40435	1,2,5,6,10,13
Forestry: Woody Plant Biology	F405 34	1,3,8,9,10

The tables below show how the individual Units map to the aims of the awards.

HND Forestry

Unit title	Unit code	Aims
Forestry: Forest Science	F3YW 34	4,5,9,10
Establishment of Woodland	F3YC 34	4,5,6,8
Forest Harvesting	F3YD 34	4,5,6,7,8,10
Forest Mensuration and Thinning Control	F3YF 34	4,6,7,10,11,12
Employment and Health and Safety Legislation for the Land Based Industries	F0VP 34	4,5,6,10,13,
Forestry Operations: Work Programming	F3YM 34	4,5,6,7,8,10
Forestry: Timber Sales and Transportation	F400 34	5,6,7,10,11,12,13
Forestry: Land Measurement	F406 34	6,7,8,10,13
Forestry Policy and Law	F3YT 35	5,8,10,11,13
Forestry and Other Land Use	F3YJ 35	4,5,7,8,10,11,12,13
Forestry: Forest Protection	F3YV 35	4,5,6,7,8,9,10,11,12,13
Forest Industries Market Evaluation	F3YL 35	5,7,8,10,11,12,13
Forestry: Financial Control of Forest Enterprises	F3YP 35	5,6,10,11,12,13
Forestry: Woodland Conservation	F402 35	4,5,8,9,10,13
Forestry: Forest Design	F3YR 35	4,5,7,8,9,10,13
Forestry: Woodland Ecology	F403 35	5,7,8,9,10,13
Forest Recreation	F3YG 35	5,7,8,10,11,12,13
Forestry: Graded Unit 1	F4SH 34	4,5,6,7,8,9,10,11,12,13
Forestry: Graded Unit 2	F4SJ 35	4,5,6,7,8,9,10,11,12,13
Information Technology Software Applications 1	D75X 34	10
Forestry: Silvicultural Systems	F3YY 34	4,5,7,8,9,10,11,12,13
Forestry: Arboricultural Operations	F3YN 34	5,6,10,11,12,13
Woodland Nursery Production	F408 34	4,5,8,10,12,13
Forestry: Woody Plant Biology	F405 34	4,5,8,9,10
Forestry: Use of Computers in Forest Management	F401 35	5,6,7,8,10,12

HND Forestry (continued)

Unit title	Unit code	Aims
Forest Investment Appraisal and Forest Valuation	F3YE 35	4,5,8,11,12,13
Forestry in Europe	F3YK 35	4,5,8,9,10,11,13
Urban Woodlands and Green Space	F407 35	5,6,7,9,10,13
Forestry: Alternative Forest Products	F3YH 34	4,5,6,8,9,10,11,12,13
Getting Started in Business	DK2K 34	5,6,8,10,11,12
Communication: Analysing and Presenting Complex Communication	DE3N 34	5,6,10
Communication: Practical Skills	D77G 34	5,6,10

5.2.1 Mapping to National Occupational Standards

Lantra is the Sector Skills Council responsible for the National Occupational Standards (NOS) in this vocational area. The HN Units have been mapped to the NOS for Treework and Trees and Timber Management. Details of this mapping exercise are given in Appendix 2.

5.3 Articulation, professional recognition and credit transfer

Articulation details to degree courses are given in Section 3.5. A diagram showing the Scottish School of Forestry's Education Progression is given in Appendix 7.

The awards are also given professional recognition by the Institute of Chartered Foresters.

5.3.1 Credit transfer

During the transition programme some candidates may wish to transfer from:

- ◆ An HNC developed under the 1988 design principles to an HND validated under the 2003 design principles in the same subject area
- ◆ The first part of an HND developed under the 1988 design rules into an HND validated using the 2003 design principles in the same subject area

To facilitate this, it has been agreed that:

- ◆ such candidates need only achieve (within the 240 SCQF credit points required for the revised HND) Graded Units of 16 SCQF credit points at SCQF level 8 (instead of Graded Units of 8 SCQF credit points at SCQF level 7 and 16 SCQF credit point at SCQF level 8). However:
- ◆ all candidates should be given opportunities to develop Core Skills required by end-users of the HN qualification
- ◆ the candidate should be able to be given credit for the Units previously achieved in the 1988 design rules HNC and/or HND towards some of the Units in the revised HND

Candidates are still required to meet the conditions of award for the revised HND. This means that a candidate transferring can gain the revised HND by achieving:

- ◆ the mandatory Units (either by credit transfer or normal study) within the revised framework
- ◆ a Graded Unit or Graded Units of 16 SCQF credit points at SCQF level 8
- ◆ the remaining SCQF credit points at the SCQF level required (either by credit transfer or normal study)
- ◆ development of the Core Skills required by the end-users of the Group Award

Details of credit transfer arrangements from old Units to new Units is given in Appendix 3.

This will also apply to the ECTS system for candidates studying partly abroad on an LLL Erasmus exchange programme.

6 Approaches to delivery and assessment

6.1 Content and context

The HNC and HND in Forestry are designed for candidates who wish to gain employment in a wide range of forestry related careers, for example in forest establishment, harvesting, timber marketing, conservation, and estate management in both the state and private sectors of the industry.

The Group Awards will develop the candidates' practical, interpersonal and social skills which have been identified as important requirements. They will also prepare candidates for progression to a range of further programmes of study either in Higher Education or professional qualifications.

6.2 Delivery

The Units across both Group Awards have been sequenced to allow the candidates to progress from a basic initial understanding of concepts, processes and organisations relating to forestry, to a greater understanding both in the depth and breadth of forest management. In particular, the HND Award places increased emphasis on providing the opportunity to apply the management theory by developing skills in research, analysis and planning.

With this in mind, the Graded Unit assessments take the form of a case study project for the HNC and a management plan practical assignment project for the HND. In the HNC it is recommended that the mandatory Units (other than the Graded Unit) providing introductory knowledge and skills in forestry are delivered in the first/second phase of the programme where possible.

It may be beneficial if the IT optional Units are delivered towards the beginning of the course so that the IT skills gained can be used throughout the programme.

For the HND award it is recommended the double credit Graded Unit be delivered sufficiently early through the second year to allow candidates sufficient time to complete and to benefit from the HNC Units and the HND management Units offered early in the HND year.

Candidates may choose to incorporate a work experience year between the first and second year of the HND programme. This will enable candidates to put into practice the knowledge and skills from the HND year 1 programme and help them prepare for their HND studies.

A suggested delivery schedule is given in Appendix 4.

6.3 Assessment

The new HN proposals place a great emphasis on an integrative approach to assessment. There are integration opportunities within the Group Awards for the following Units:

Integrates with	
Forestry: Forest Science	Forestry: Woody Plant Biology Establishment of Woodland
Forest Harvesting	Forest Mensuration and Thinning Control
Establishment of Woodlands	Forestry: Silvicultural Systems
Forestry: Use of Computers in Forest Management	Forestry: Land Measurement Forestry and Other Land Use Forestry: Forest Design Forest Investment Appraisal and Valuation

There may be other integration opportunities depending on the optional Units taken.

Graded Units have been introduced in both Group Awards in line with the HN design principles. As well as encapsulating the key aims of both Group Awards, these bring with them a level of integration and synthesis not featured in the current Group Awards.

Summative assessments throughout the awards have been reduced in line with the design principles. These assessments meet most of the criteria of the Core Skills signposting but some Core Skills elements may not be covered in these assessments. Formative assessment are also used to assess Core Skills signposted in the Units, these are mainly Oral Communication and Working with Others.

6.4 Open and Distance Learning

The awards may be delivered by open and distance learning methods, provided that adequate preparations are made. Additional planning and resources may be needed for candidate support and assessment.

6.5 Resource requirements

Centres delivering the awards will require increased availability and use of IT equipment including Smartboards, digital projectors, networked computers and VLEs. There will be a need for increasing the use of advanced technological aids for tree measurement and tree condition surveys including Picus Sonic Tomograph and laser hypsometers.

7 General information for centres

Candidates with disabilities and/or additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

Internal and external verification

All instruments of assessment used within this/these Group Award(s) should be internally verified, using the appropriate policy within the centre and the guidelines set by SQA.

External verification will be carried out by SQA to ensure that internal assessment is within the national guidelines for these qualifications.

Further information on internal and external verification can be found in *SQA's Guide to Assessment and Quality Assurance for Colleges of Further Education* (www.sqa.org.uk).

8 General information for candidates

The HNC and HND in Forestry form coherent structured awards designed to provide you with the opportunity to learn and develop supervisory and managerial knowledge and skills that will enhance you as individuals and enable you to meet the needs and demands of a diverse forest industry.

You will combine the core strengths of technical and practical knowledge of forestry with the skills of operational and project management in a wide range of activities in line with best modern forestry practice.

The awards are designed around core values and concepts such as: sustainability, biodiversity, community engagement, and social forestry. You will develop knowledge and skills so that you can meet the challenges of a diverse forest industry. You will gain technical expertise in the main areas of forest management — silviculture, harvesting, survey and data collection, data analysis and operational planning, work programming, financial and supervisory controls and policy and legislation. Allied to this technical expertise will be the transferable skills of team working, *Problem Solving*, *IT*, *Numeracy* and *Communication*.

Many of your assessments will be based on a range of forest management objectives. Each of the awards incorporate project based Graded Units which are designed to assess the principal aims of the Group Awards. Graded Unit 1 is a core Unit within HNC award or first year HND. Graded Unit 2 is a double credit Unit which will be undertaken in the second year of the HND award.

The HNC is an award that has been designed not only as a stepping stone to the HND and the BSc in Sustainable Forest Management but also to meet the needs for forest supervisors and contract team leaders within the forest industry. This will also allow entry onto a career path which can be supplemented with part-time study whilst in employment and progression through CPD.

The HND is an award designed to meet the need for technical managers within the forest industry and particularly suited to organisations and firms working on larger scale developments as well as part of the progression route to the BSc in Sustainable Forest Management.

9 Glossary of terms

SCQF: This stands for the Scottish Credit and Qualification Framework, which is a new way of speaking about qualifications and how they inter-relate. We use SCQF terminology throughout this guide to refer to credits and levels. For further information on the SCQF visit the SCQF website at www.scqf.org.uk

SCQF credit points: One HN credit is equivalent to 8 SCQF credit points. This applies to all HN Units, irrespective of their level.

SCQF levels: The SCQF covers 12 levels of learning. HN Units will normally be at levels 6–9. Graded Units will be at level 7 and 8.

Subject Unit: Subject Units contain vocational/subject content and are designed to test a specific set of knowledge and skills.

Graded Unit: Graded Units assess candidates' ability to integrate what they have learned while working towards the Units of the Group Award. Their purpose is to add value to the Group Award, making it more than the sum of its parts, and to encourage candidates to retain and adapt their skills and knowledge.

Dedicated Unit to cover Core Skills: This is a non-subject Unit that is written to cover one or more particular Core Skills.

Embedded Core Skills: This is where the development of a Core Skill is incorporated into the Unit and where the Unit assessment also covers the requirements of Core Skill assessment at a particular level.

Signposted Core Skills: This refers to the opportunities to develop a particular Core Skill at a specified level that lie outwith automatic certification.

Qualification Design Team: The QDT works in conjunction with a Qualification Manager/Development Manager to steer the development of the HNC/HND from its inception/revision through to validation. The group is made up of key stakeholders representing the interests of centres, employers, universities and other relevant organisations.

Consortium-devised HNCs and HNDs are those developments or revisions undertaken by a group of centres in partnership with SQA.

Specialist single centre and specialist collaborative devised HNCs and HNDs are those developments or revisions led by a single centre or small group of centres who provide knowledge and skills in a specialist area. Like consortium-devised HNCs and HNDs, these developments or revisions will also be supported by SQA.

10 Appendices

Appendix 1 Core Skills signposting

Appendix 2 Mapping to National Occupational Standards

Appendix 3 Credit transfer information

Appendix 4 Suggested delivery schedule

Appendix 5 Curriculum maps

Appendix 6 Curriculum map — HNC/HND Forestry

Appendix 7 Educational progression

Appendix 1

Core Skills signposting

The specific opportunities to develop Core Skills in individual Units are shown in the following tables.

Appendix 1: Core Skills signposting

1 Communication (SCQF level 6)

1.1 Written Communication (Reading)

Read and understand complex Written Communication

- a Identify and summarise significant information, ideas and supporting detail.
- b Evaluate effectiveness in meeting purpose and needs of readership.

Unit	Knowledge and Skills/Evidence	a	b
Graded Unit 2	Using written skills to communicate an understanding management planning and evaluation of information.	*	*
Forestry: Forest Design	Using written skills to communicate an understanding of the role forest and woodland design and the practical concepts.	*	*
Forestry: Forest Policy and Law	Using written skills to communicate how forest policy and law influence the industry at a local and national level. Using essay and project instruments.	*	*
Forestry and Other Land Use	Using written skills to communicate how forestry and other land uses integrate together in the rural economy and landscape.	*	*

1.2 Written Communication (Writing)

Produce well-structured Written Communication on complex topics

- a Present essential ideas/information in a logical and effective order.
- b Use a structure which takes account of purpose/links points for clarity and impact.
- c Use conventions which are effective adapted for audience.
- d Use accurate spelling, punctuation, sentence structures.
- e Vary sentence structure, paragraphing, vocabulary to suit purpose and target audience.

Unit	Knowledge/Skills/Evidence	a	b	c	d	e
Graded Unit 2	Using written skills to communicate an understanding management planning and evaluation of information.	*	*	*	*	*
Forestry: Forest Design	Using written skills to communicate an understanding of the role forest and woodland design and the practical concepts.	*	*	*	*	*
Forestry: Forest Policy and Law	Using written skills to communicate how forest policy and law influence the industry at a local and national level. Using essay and project instruments.	*	*	*	*	*
Forestry and Other Land Use	Using written skills to communicate how forestry and other land uses integrate together in the rural economy and landscape.	*	*	*	*	*

1.3 Oral Communication

Produce and respond to Oral Communication on a complex topic

- a Use vocabulary and a range of spoken language structures consistently and effectively with appropriate formality.
- b Convey all essential ideas/information/opinions accurately and coherently with appropriate varied emphasis.
- c Structure to take full account of purpose and audience.
- d Take account of situation and audience during delivery.
- e Respond to others taking account of their contribution.

Unit	Knowledge/Skills/Evidence	a	b	c	d	e
Forestry: Forest Policy and Law	Using oral skills to communicate how forest policy and law influence the industry at a local and national level. Using short presentation to the class as the instrument.	*	*	*	*	*
Forestry and Other Land Use	Using oral skills to communicate how forestry and other land uses integrate together in the rural economy and landscape by means of a short presentation.	*	*	*	*	*
Forestry: Forest Protection	Oral presentation on a damaging agent, its damage, control and life cycle.	*	*	*	*	*
Teaching and learning for all Units will involve on-going discussion with and presentation to a range of people, analysing and evaluating relevant and related information. Personal interviews with and guidance from assessors will support verbal exploration of complex issues and problem solving approaches.						

2 Using Information Technology (SCQF level 5)

Use an IT system effectively and responsibly to process a range of information

- a Make effective and responsible use of the range of IT equipment in everyday use.
- b Carry out straightforward processing in two types of software application.
- c Carry out complex processes to use one further application in depth.
- d Integrate different types of data in a piece of work.
- e Carry out two searches to extract and present relevant information from electronic data sources.

Unit	Knowledge/Skills/Evidence	a	b	c	d	e
Graded Unit 2	Applying IT skills to communicate an understanding management planning and evaluation of information.	*	*	*	*	*
Forestry: Use of Computers in Forest Management	Applying IT skills to interpret and communicate information from electronic sources namely GIS and spreadsheets.	*	*	*	*	*
Forestry: Land Measurement	General IT use for project compilation using word processing and tables, plus introduction to use of GIS and GPS.		*	*	*	
Forest Mensuration and Thinning Control	Use of word processing and spreadsheets to compute and analyse information on timber measurement and production forecasting. Use of electronic measuring equipment.		*	*	*	
Forestry: Timber Sales and Transportation	Use of word processing and spreadsheets to compute and analyse information on timber measurement and production forecasting. Search web for timber price data.		*	*	*	*
<p>Internet research on current forestry/arboriculture issues, events and practice will provide essential underpinning knowledge for the award. Security, consideration and the managing of any technical problems will be a routine aspect of research, records of information and good practice.</p> <p>Professional presentation of all materials will involve access to and use of technology.</p>						

3 Numeracy (SCQF level 5)

3.1 Skill component — Using Numbers

Apply a wide range of numerical skills

- a Work confidently with a numerical concept.
- b Decide on the numerical operations to be carried out.
- c Carry out complex calculations or a number of sustained calculations.

Unit	Knowledge/Skills/Evidence	a	b	c
Graded Unit 2	Applying numeracy skills to display and calculate management planning data.	*	*	*
Forestry: Use of Computers in Forest Management	Applying numeracy skills to display and calculate financial and or management planning data.	*	*	*
Forestry: Land Measurement	Applying numeracy skills to land measurement/surveying project.		*	*
Forest Mensuration and Thinning Control	Use numeracy to compute and analyse information on timber measurement and production forecasting.		*	*
Forestry: Timber Sales and Transportation	Use of numeracy to compute and analyse information on timber costing and production control. Search web for timber price data.		*	*

3 Numeracy (SCQF level 5)

3.2 Skill component — Using graphical information

Interpret and communicate graphical information in everyday and generalised contexts

- a Interpret information from tables, graphs, charts or diagrams.
- b Select an appropriate form of tables, graphs, charts, diagrams and communicate information in that form.

Unit	Knowledge/Skills/Evidence	a	b
Graded Unit 2	Applying numeracy skills to display and calculate management planning data.	*	*
Forestry: Use of Computers in Forest Management	Applying numeracy skills to display and calculate financial and or management planning data.	*	*
Forest Mensuration and Thinning Control	Use numeracy to compute and display information on timber measurement and production forecasting.	*	*
Forestry: Timber Sales and Transportation	Use of numeracy to compute, analyse and display information on timber costing and production control. Search web for timber price data.	*	*

4 Problem Solving (SCQF level 6)

4.1 Critical Thinking

- ◆ Analyse a complex situation or issue

4.2 Planning and Organising

- ◆ Plan organise and complete a complex task

4.3 Reviewing and Evaluating

- ◆ Review and evaluate a complex problem solving activity

Unit	Knowledge/Skills/Evidence	CT	PO	RE
Graded Unit 2	Using critical thinking to give rise to an understanding of management planning and evaluation of information resulting in the production of a plan.	*	*	*
Forestry: Forest Design	Using critical thinking and problem solving to evaluate the landscape of an area and produce a landscape plan. Review and evaluate the result.	*	*	*
Forestry: Forest Policy and Law	Using critical thinking to develop an understanding of forest policy and law in relation to the industry at a local and national level. Using essay and grant application project instruments.	*	*	
Forestry and Other Land Use	Using critical thinking and problem solving to understand and evaluate how forestry and other land uses integrate together in the rural economy and landscape.	*	*	*
All elements of the Core Skill will be critical to the award which involves throughout an analytical and evaluative approach to problem solving. Analysis, strategic planning and implementation of a range of practical activities which require skills in communication, co-operation and negotiation with others is integral, and evaluative activities on an on-going basis.				

5 Working with Others (SCQF level 6)

5.1 Work with Others in a group to analyse, plan and complete an activity

- a Analyse the activity and identify component tasks and roles.
- b Agree allocation of activities taking account of group strengths and weaknesses.
- c Support co-operative working.
- d Evaluate and draw conclusions about own contribution, justifying with evidence.

Unit	Knowledge/Skills/Evidence	a	b	c	d
Forestry: Forest Science	Working with others as a team to complete an activity to collect field data for project submission.	*	*	*	
Establishment of Woodland	Working with others to complete an activity to collect field data for project submission.	*	*	*	
Forest Mensuration and Thinning Control	Working with others in a team to complete an activity to collect field data for project submission.	*	*	*	*
All elements of the Core Skill will be critical to achievement of the award. Working in business and trade requires an understanding of motivation, negotiation and persuasion, as well as an analytical and evaluative approach to working with a range of others.					

Recommended Core Skill Exit level by Unit

Unit name	Unit code	Communication Writing – reading and understanding	Communication Produce written communication	Communication Oral communication - Listening and talking	IT	Numeracy Using Numbers	Numeracy Using Graphical Information	Problem Solving Critical Thinking	Problem Solving Planning and Organising	Problem Solving Reviewing and Evaluating	Working With Others
Forestry: Forest Science	F3YW 34		5	5				5			5
Establishment of Woodland	F3YC 34	5	5	5				5	5		5
Forest Harvesting	F3YD 34		5			5		5	5		5
Forest Mensuration and Thinning Control	F3YF 34	5		5	5	5	5				5
Employment and Health and Safety Legislation for the Land Based Industries	F0VP 34		5	5				5	5		
Forestry Operations: Work Programming	F3YM 34	5	5		5	5	5	5	5		
Forestry: Graded Unit 1	F3SH 34		5		5	5	5	5	5	5	5
Forestry: Timber Sales and Transportation	F400 34	5	5		5	5	5	5			
Forestry: Land Measurement	F406 34		5		5	5		5	5		5
Communication: Analysing and Presenting Complex Communication or	DE3N 34	5	5	5							
Communication: Practical Skills	D77G 34	5	5	5							
Information Technology Software Applications 1	D75X 34				5	5	5				
Forestry: Silvicultural Systems	F3YY 34	5	5	5				5			5
Forestry: Arboricultural Operations	F3YN 34		5						5		5
Woodland Nursery Production	F408 34		5	5				5		5	5
Forestry: Woodland Management Planning	F404 35		5								
Forestry: Woody Plant Biology	F405 34	5	5	5							

Unit title	Unit code	Communication Writing – reading and understanding	Communication Produce written communication	Communication Oral communication - Listening and talking	IT	Numeracy Using Numbers	Numeracy Using Graphical Information	Problem Solving Critical Thinking	Problem Solving Planning and Organising	Problem Solving Reviewing and Evaluating	Working With Others
Forest Policy and Law	F3YT 35	5	5					6			
Forestry and Other Land Use	F3YJ 35	6	6	6	5			6		6	
Forstry: Forest Protection	F3YV 35		6	6				6		6	
Forest Industries Market Evaluation	F3YL 35		6					6		6	
Forestry: Financial Control of Forest Enterprises	F3YP 35					5	5	6			
Forestry: Graded Unit 2	F4SJ 35	6	6		5	5	5	6	6	6	5
Forestry: Woodland Conservation	F402 35		6					6		6	5
Forestry: Forest Design	F3YR 35		6		5	5		6	6	6	
Forestry: Woodland Ecology	F403 35	6	6					6			
Forestry: Use of Computers in Forest Management	F401 35				6	6	6				
Forest Investment Appraisal & Valuation	F3YE 35		6		5	6	5	6		6	
Forestry in Europe	F3YK 35	6		6	5		5	6			
Forest Recreation	F3YG 35	6	6					6		6	
Urban Woodland and Green Space	F407 35	6	6					6		6	
Forestry: Alternative Forest Products	F3YH 34		6					6		6	
Getting Started in Business	DK2K 34	6	6			5		6	6		

Appendix 2

Mapping to Lantra National Occupational Standards

Lantra Sector Skills

National Occupational Standards December 2005

Treeworks and Trees and Timber Management

Mapping Exercise to HNC/HND Forestry

HNC/HND Forestry

Unit title	Unit code	Treeworks	Trees and Timber Management
Forestry: Forest Science	F3YW 34	T3	CU91
Establishment of Woodland	F3YC 34	T3, CU76	T38, T40, CU82, CU91, CU147
Forest Harvesting	F3YD 34	CU101	T39, CU91, CU101, CU106, CU147
Forest Mensuration and Thinning Control	F3YF 34		CU101
Employment and Health and Safety Legislation for the Land Based Industries	F0VP 34	CU3, A	T38, T39, CU106
Forestry Operations: Work Programming	F3YM 34		T44, CU97
Forestry: Timber Sales and Transportation	F400 34	CU101	T44, CU96, CU97, CU101, CU102, CU108, CU147
Forestry: Land Measurement	F406 34		CU91
Forestry: Graded Unit 1	F4SH 34		T38, T39, T45, CU82, CU83, CU91, CU101, CU106
Communication: Analysing and Presenting Complex Communication or Communication: Practical Skills	DE3N 34 D77G 34		
Information Technology Software Applications 1	D75X 34		
Forestry: Silvicultural Systems	F3YY 34		

Unit title	Unit code	Treeworks	Trees and Timber Management
Forestry: Arboricultural Operations	F3YN 34	T32	T41, CU147
Woodland Nursery Production	F408 34	T3, CU76	CU82, CU147
Forestry: Woodland Management Planning	F40435		T40, CU82, CU91, CU147
Forestry: Woody Plant Biology	F405 34		
Forestry: Forest Policy and Law	F3YT 35		T41, CU99
Forestry and Other Land Use	F3YJ 35		
Forestry: Forest Protection	F3YV 35	T35, CU78, CU80	T37
Forest Industries Market Evaluation	F3YL 35		CU108, CU147
Forestry: Financial Control of Forest Enterprises	F3YP 35		T44
Forestry: Woodland Conservation	F402 35	CU88	CU91
Forestry: Forest Design	F3YR 35		T40
Forestry: Woodland Ecology	F403 35	CU88	CU91
Forestry: Use of Computers in Forest Management	F401 35		

Unit title	Unit code	Treeworks	Trees and Timber Management
Forest Investment Appraisal and Valuation	F3YE 35		T44, CU99, CU101
Forestry in Europe	F3YK 35		
Forest Recreation	F3YG 35		T42
Urban Woodlands and Green Space	F407 35	CU88	T42
Forestry: Alternative Forest Products	F3YH 34	CU101	CU102
Getting Started in Business	DK2K 34		CU96, CU99, CU108
Forestry: Graded Unit 2	F4SJ 35		T37, T44, CU91, CU96, CU99, CU101
<i>PDA Units:</i>			
Forestry: Operational Control	F3YX 35		T38, T39, T44, T45, CU82, CU83, CU91, CU147
Forestry: Forest Planning and Management	F3YS 35		

Appendix 3: Credit transfer information

New Unit title	New Unit code	Old Unit title	Old Unit code	Credit transfer conditions
Forestry: Forest Science	F3YW 34	Forest Science	D4BN 04	Full credit transfer
Establishment of Woodland	F3YC 34	Silviculture	D4C8 04	Full credit transfer
Forest Harvesting	F3YD 34	Forest Harvesting	D4BE04	Full credit transfer
Forest Mensuration and Thinning Control	F3YF 34	Timber Measurement ----- Forest Thinning Control	D4C904 D4BP04	Full credit transfer if have both units otherwise evidence will have to be submitted
Employment and Health and Safety Legislation for the Land Based Industries	F0VP 34	Forestry Operations: Legal Aspects	D4C404	Full credit transfer
Forestry Operations: Work Programming	F3YM 34	Forestry Operations: Work Programming	D4C7 04	Full credit transfer
Forestry: Timber Sales and Transportation	F400 34	Forestry: Timber Sales and Removals	D4C2 04	Full credit transfer
Forestry: Land Measurement	F406 34	Forestry: Land Measurement	D4C0 04	Full credit transfer
Communication: Analysing and Presenting Complex Communication or Communication: Practical Skills	DE3N 34 D77G 34	Communication 1: Presenting Complex Communication	D5P304	
Information Technology Software Applications 1	D75X 34	Information Technology Applications 1	A6AM 34	Full credit transfer
Forestry: Silvicultural Systems	F3YY 34	Forestry: Silvicultural Systems	D4C1 04	Full credit transfer
Forestry: Arboricultural Operations	F3YN 34	Forestry: Arboricultural Operations	D4BS04	Full credit transfer
Woodland Nursery Production	F480 34	Forest Nursery Production	D4BH 04	Full credit transfer

New Unit title	New Unit code	Old Unit title	Old Unit code	Credit transfer conditions
Forestry: Woodland Management Planning	F40435	Woodland Operations	D4CC 04	Full credit transfer
Forestry: Woody Plant Biology	F405 34	Horticultural Biology	D46H 04	Full credit transfer
Forestry: Forest Policy and Law	F3YT 35	Forestry: Economic Policy and Legislation	D4BV 04	Full credit transfer
Forestry Other Land Use	F3YJ 35	Forestry: Conservation and Land Use	D4BT 04	Full credit transfer
Forestry: Forest Protection	F3YV 35	Forest Protection	D4BL04	Full credit transfer
Forest Industries Market Evaluation	F3YL 35	Forest Industries: Market Evaluation	D4BF04	Full credit transfer
Forestry: Financial Control of Forest Enterprises	F3YP 35	Forestry: Financial Control of Forest Enterprises	D4BW04	Full credit transfer
Forestry: Graded Unit 2	F3SJ 35	Forest Planning and Management: Forest Plans	D4BK04	Full credit transfer
Forestry: Woodland Conservation	F402 35	Forestry: Conservation and Land Use	D4BT 04	Full credit transfer
Forestry: Forest Design	F3YR 35	Forestry: Forest Design	D4BY 04	Full credit transfer
Forestry: Woodland Ecology	F403 35	Forestry: Woodland Ecology	D4C3 04	Full credit transfer
Forestry: Use of Computers in Forest Management	F401 35	Use of Computers in Forest Management	D4CB04	
Forest Investment Appraisal & Valuation	F3YE 35	Forestry: Economic Policy and Legislation ----- Forest Valuation	D3BV 04	
Forestry in Europe	F3YK 35	European Forestry	D4BC 04	
Forest Recreation	F3YG 35	Forest Recreation	D4BM04	

New Unit title	New Unit code	Old Unit title	Old Unit code	Credit transfer conditions
Urban Woodlands and Green Space	F407 35	Urban Forestry	D4CA04	
Forestry: Alternative Forest Products	F3YH 34	Alternative Forest Produce	DGBB04	
Getting Started in Business	DK2K 34	Forestry: Business Planning	D4BX 04	
<i>PDA Units:</i>				
Forestry: Operational Control	F3YX 35	Forest Operations: Operational Control	D4C504	Full credit transfer
Forestry: Forest Planning and Management	F3YS 35	Forest Planning and Management: Forest Management	D4BJ04	Full credit transfer

Appendix 4: Suggested delivery schedule

Unit title	Unit code	Year	Phase	Mandatory/Option	Credit
Forestry: Forest Science	F3YW 34	1	1	M	2
Establishment of Woodland	F3YC 34	1	1	M	2
Forest Harvesting	F3YD 34	1	1	M	2
Forest Mensuration and Thinning Control	F3YF 34	1	1	M	1
Employment and Health and Safety Legislation for the Land Based Industries	F0VP 34	1	2	M	1
Forestry: Timber Sales and Transportation	F400 34	1	2	M	1
Forestry: Graded Unit 1	F4SH 34	1	3	M	1
Options from:					
Forestry Operations: Work Programming	F3YM 34	1	2	O	1.5
Forestry: Land Measurement	F406 34	1	2	O	1.5
Communication: Analysing and Presenting Complex Communication or Communication: Practical Skills	DE3N 34 D77G 34	1	1	O	1
Information Technology Software Applications 1	D75X 34	1	2	O	1
Forestry: Silvicultural Systems	F3YY 34	1	3	O	1
Forestry: Arboricultural Operations	F3YN 34	1	3	O	1
Woodland Nursery Production	F408 34	1	3	O	1
Woodland Operations		1	2	O	1
Forestry: Woody Plant Biology	F405 34	1	2	O	1

Unit title	Unit code	Year	Phase	Mandatory/Option	Credit
HND 2nd Year					
Forestry: Forest Policy and Law	F3YT 35	2	1	M	2
Forestry and Other Land Use	F4YJ 35	2	2/3	M	1
Forestry: Forest Protection	F3YV 35	2	1/2	M	2
Forest Industries Market Evaluation	F3YL 35	2	2	M	1
Forestry: Financial Control of Forest Enterprises	F3YP 35	2	1	M	1
Forestry: Woodland Conservation	F402 35	2	3	M	1
Forestry: Forest Design	F3YR 35	2	1	M	1
Forest Recreation	F3YG 35	2	1	M	1
Forestry: Woodland Ecology	F403 35	2	2/3	M	1
Forestry: Graded Unit 2	F4SJ 35	2	3	M	2
Options from:					
Forestry: Use of Computers in Forest Management	F401 35	2	3	O	1
Forest Investment Appraisal and Valuation	F3YE 35	2	2	O	1
Forestry in Europe	F3YK 35	2	3	O	1
Urban Woodlands and Green Space	F407 35	2	2	O	1
Forestry: Alternative Forest Products	F3YH 34	2	3	O	1
Getting Started in Business	DK2K 34	2	3	O	1

Appendix 5: Curriculum maps — Programme Outcomes

A Knowledge and Understanding:

- A1 Have a knowledge and understanding of fundamental concepts relating to forestry and arboriculture sustainable management.
- A2 Have a general knowledge and understanding of the forestry and arboriculture industry.
- A3 Have a detailed knowledge and understanding of the practices associated with forestry and arboriculture and forestry and conservation management.
- A4 Have a knowledge and understanding of the specialist practical aspects of forestry and arboriculture and forestry management.
- A5 Have a knowledge and understanding of the business and public relations aspects of forestry and arboriculture and forestry and conservation management.
- A6 *Have a knowledge and understanding of the economic and social and environmental impact of forestry and forestry and conservation management.*

B Intellectual skills learning Outcomes

Generic Skills:

- B1 Apply the skills needed for academic study and enquiry.
- B2 Evaluate, research various forms of evidence and information.
- B3 Synthesise relevant information from a variety of sources to gain a coherent understanding of theory and practice.
- B4 Apply strategies for appropriate selection of relevant information from a variety of sources.
- B5 Utilise problem solving skills.
- B6 Effectively use and apply the knowledge and skills acquired in a variety of general and specific situations.

C Subject practical skills learning Outcomes

- C1 Undertake competent and safe working practices relevant to forestry practice and forestry and conservation management.
- C2 Assist in the management of forests on an industrial placement.
- C3 Assist in the management of operations on an industrial placement.
- C4 Assist in the management of personnel on an industrial placement.
- C5 Assist in the financial planning associated with a forest and arboriculture enterprise.

D Transferable skills learning Outcomes

Communication, Numeracy, IT, Problem-Solving and Working with Others

- D1 Candidates will be able to develop oral and written communication skills throughout the Units and during practical placements.
- D2 Candidates will be able to develop numeracy skills throughout the Units.*
- D3 Candidates will be able to use a variety of IT packages including word processing, spreadsheets and Internet searches.
- D4 Candidates will develop their problem-solving skills throughout the Units/modules and especially on work placement.
- D5 Candidates will develop their skills associated with Working with Others during their work placement and through specific Units where teamwork is essential.
- D6 Manage time and prioritise workloads effectively.

Appendix 6: Curriculum Map — HNC/HND Forestry

Category	Unit title	Unit code	A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5	D6
Year 1	Forestry: Forest Science	F3YW 34	X		X	X			X	X	X	X		X						X	X		X	X	
	Establishment of Woodland	F3YC 34	X	X		X	X		X	X	X	X	X	X	X						X	X	X	X	
	Forest Harvesting	F3YD 34	X	X	X	X			X			X		X	X					X					
	Forest Mensuration and Thinning Control	F3YF 34	X	X	X	X		X				X			X					X	X		X		
	Employment and Health and Safety for the Land Based Industries	F0VP 34	X		X	X					X			X								X	X	X	
	Forestry Operations: Work Programming	F3YM 34																							
	Forestry: Graded Unit 1	F4SH 34	X	X	X				X	X	X		X	X						X	X	X		X	
	Forestry: Timber Transportation and Removals	F400 34	X			X		X							X					X	X		X		
	Forestry: Land Measurement	F406 34	X	X	X	X		X		X			X												
	Information Technology: Applications Software 1	D75X 34																							
	Communication DE3N	DE3N 34 or D77G 34					X				X		X	X	X				X		X	X	X		
	Forestry: Silvicultural Systems	F3YY 34																							
	Forestry: Arboricultural Operations	F3YN 34																	X						
	Woodland Nursery Production	F408 34	X																						
	Forestry: Woodland Management Planning	F40435	X			X								X									X		
	Forestry: Woody Plant Biology	F405 34																							

Category	Unit title	Unit code	A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5	D6
Year 2	Forestry: Forest Policy and Law	F3YT 35		X	X		X	X	X	X	X	X	X	X				X		X	X	X	X		
	Forestry and Other Land Use	F3YJ 35	X	X	X			X	X	X	X	X	X	X								X		X	
	Forestry: Forest Protection	F3YV 35	X					X	X	X	X								X						
	Forestry: Financial Control of Forest Enterprises	F3YP 35					X													X					
	Forest Management Planning		X	X	X	X		X	X	X	X	X	X	X		X		X	X	X	X	X	X	X	X
	Forest Design		X	X										X											
	Forestry: Woodland Ecology	F403 35	X						X	X	X	X		X								X	X		
	Forest Industries Market Evaluation	F3YL 35	X	X	X	X			X	X	X	X	X					X	X					X	
	Forestry: Woodland Conservation	F402 35	X	X	X			X	X	X	X	X	X	X							X			X	
	Forestry: Use of Computers in Forest Management	F401 35	X										X							X	X				
	Forest Investment Appraisal and Valuation	F3YE 35				X						X	X							X	X	X			
	Forestry in Europe	F3YK 35	X	X	X			X	X	X	X	X		X					X					X	
	Forest Recreation	F3YG 35	X	X		X	X	X		X	X	X		X	X	X							X		
	Urban Woodlands and Green Space	F407 35	X	X	X	X	X	X	X	X	X	X											X		
	Forestry: Alternative Forest Products	D3YH 34	X	X	X		X	X		X	X	X							X					X	
	Getting Start in Business	DK2K 34	X													X									

Appendix 7: Educational progression

